

DGCA



Current Regulatory situation for Drone operations in India

[CAR, Section 3, Series X, Part I – Operations of Remotely Piloted Aircraft System (RPAS)]

Introduction

Rule 5A of Aircraft Rules, 1937

- Empowers DGCA to issue directions in the interests of the security of India or for securing the safety of aircraft operations.
- Considering potential threats posed by drones, on 7th October, 2014, DGCA issued a Public notice restricting non government agency, organization, or an individual from launching UAS in Indian Civil Airspace for any purpose whatsoever.

YEAR 2014

Introduction

- Vide GSR No. 1358 dated 1st November, 2017, Rule 15A - Operation of Remotely Piloted Aircraft System was inserted in Aircraft Rules 1937.
- On 1st November, 2017, the draft CAR Section 3, Series X, Part I on civil RPAS was uploaded in DGCA website for public comments.
- Huge number of comments were received from various stakeholders.

YEAR 2017

Introduction

- The regulation on remotely piloted aircraft system (RPAS) finalised after extensive consultations with various stakeholders and issued on 27th August, 2018 and this regulation became effective from 1st December, 2018.
- Operations of RPAS to be enabled through Digital Sky Platform.
- The regulation and related guidelines are available in DGCA website <http://dgca.nic.in/rpas/RPAS-ind.htm>

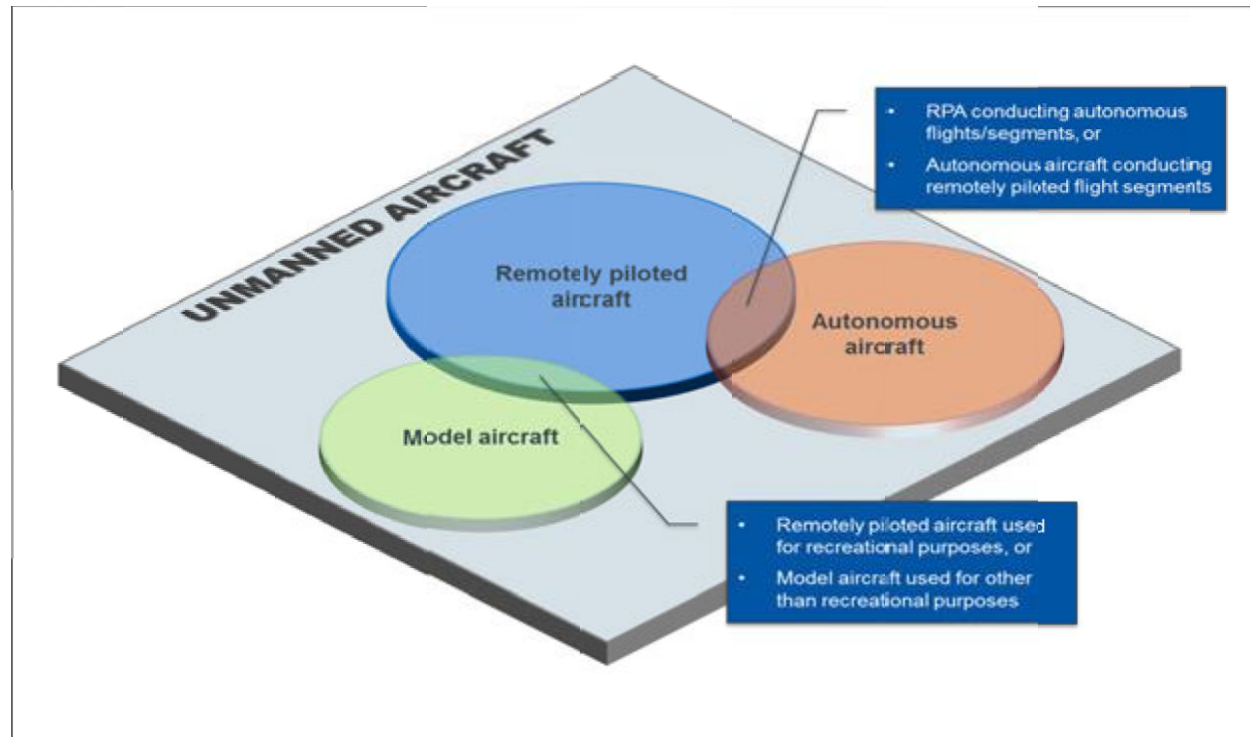
YEAR 2018

Regulations Cover

- Categorization of Remote Pilot Aircraft (RPA)
- Issuance of Unique Identification Number (UIN) for RPA weighing more than 250 grams
- Issuance/Renewal of Unmanned Aircraft Operator Permit (UAOP)
- Security Clearance
- Remote Pilot training requirements
- Equipment Requirements
- Operational/ Procedural Requirements
- No Drone Zones
- Manufacturing standards
- Enforcement actions

Applicability of CAR

- CAR Section 3, Series X, Part I is applicable to Civil Remotely Piloted Aircraft Systems, which are Remotely Piloted from a Remote Pilot Station.
- Model and Autonomous aircraft are not part of the regulations.



Categorization of Remote Pilot Aircraft (RPA)

Civil RPA is categorized in accordance with Max. All-Up-Weight (including payload)

- Nano : ≤ 250 gm
- Micro : > 250 gm and ≤ 2 kg
- Small : > 2 kg and ≤ 25 kg
- Medium : > 25 kg and ≤ 150 kg
- Large : > 150 kg

Import Clearance

- Currently, Drones/ UAV/ UAS/ RPAS are restricted items and requires import clearance from DGCA and import license from DGFT.
- RPA weighing above 250 gm (i.e. Nano category RPA exempted from Import Clearance from DGCA.
- All drones should be No-Permission No Take-off (NPNT) compliant for issuing import clearance.

Local acquisition

- Locally purchased RPAS shall have Equipment Type Approval (ETA) from Wireless Planning and Coordination (WPC) Wing, Department of Telecommunication (DoT) operating in de-licensed frequency band(s).
- Such approval shall be valid for a particular make and model.
- All applications shall be processed through “Digital Sky Platform”.

Issuance of Unique Identification Number (UIN)

- Issuance of Unique Identification Number (UIN) for RPA weighing above 250 gm.
- Nano category RPA intended to fly upto 50 feet AGL in uncontrolled airspace/ enclosed premises for commercial / recreational / R&D purposes are exempted.
- RPAs owned/ operated by NTRO, ARC, and other Central Intelligence Agencies are exempted from obtaining UIN.

Issuance/Renewal of Unmanned Aircraft Operator Permit (UAOP)

- UAOP is required to be obtained by all except the following entities:
 - Nano below 50 ft AGL in enclosed premises,
 - Micro below 200 ft AGL in uncontrolled airspace, and
 - Those agencies which have been exempted.
- However, Micro RPA operators and the exempted agencies shall intimate local police/ ATS units (as applicable).

Security Clearance

- Individual owners/pilots to obtain security clearance from MHA or submit self-attested copies of at least two out of three valid IDs viz. Passport, Driving License or Aadhar Card.
- In case of Indian company or corporate obtaining UAOP, security clearance from MHA required.
- Security programme, as approved by BCAS is required.

Remote Pilot Training

- Minimum age of Remote Pilot to be 18 years.
- For small and above category RPAS, Remote Pilot to undergo ground/practical training at DGCA approved Remote Pilot Training Organization (RPTO).
- Minimum syllabus and curriculum for training prescribed in regulations.

Equipment requirements

- All RPA except for Nano RPA operating below 50 ft. AGL and enclosed premises) should have the requisite equipment fitted (GNSS, Automatic Flight Termination system/RH, Flashing Anti-Collision light, RFID and GSM SIM/NPNT, Fire resistant UIN plate, Flight controller with flight logging capability).
- Additionally, all RPA except Nano and Micro RPA operating in uncontrolled airspace shall be fitted with SSR Transponder/ADS-B out, Barometric equipment, Geo-fence capability and Detect and Avoid systems.

Mandatory Equipment Requirements

Item/ Category	Nano (≤250 gm)	Micro (>250gm≤2kg)	Small & Above (>2kg≤25kg) (>25kg≤150kg) (>150kg)
GNSS (GPS)	x	✓	✓
RTH	x	✓	✓
Anti Collision Light	x	✓	✓
ID Plate	x	✓	✓
Flight controller with flight data logging capability	x	✓	✓
RF ID and SIM/ NPNT compliant	x	✓	✓

Operational/Procedural Requirements

Item/ Category	Nano	Micro	Small & Above
UIN	✗	✓	✓
UAOP	✗	✗	✓
Flight Plan	✗	✗(*)	✓
NPNT	✗	✓	✓
Local Police	✗	✓	✓
Remote Pilot Requirement	✗	✗	✓
Height Allowed (AGL)	50 ft	200 ft	400 ft (>400 ft restrictive)
Air Space	Uncontrolled airspace and enclosed premises	Uncontrolled airspace and enclosed premises	Controlled and uncontrolled airspace
VLoS and Day Operations	✓	✓	✓
Regulation Level	Free Environment	Partially Restricted	Restricted

(*) For Micro Category RPAS in Controlled Airspace, filing of Flight Plan is required

Operating requirements

All RPA operations are restricted to day only, within Visual Line of Sight (VLOS), subject to following conditions:

- During daylight (between sunrise and sunset).
- In Visual Meteorological Conditions (VMC) with a minimum ground visibility of 5 km and cloud ceiling not less than 1500 feet (450 m).
- Surface winds of not more than 10 knots or as specified by the manufacturer.
- No precipitation (rain, hail or snow) or thunderstorm activities, or exceeding those specified by the manufacturer

Operating requirements

- No person shall act as a remote pilot for more than one RPA operation at a time.
- RPA shall, at all times, give way to manned aircraft.
- RPA shall not discharge or drop substances unless specially cleared and mentioned in UAOP.
- RPA shall not transport any hazardous material such as explosives or animal or human payload.
- RPA operator/ remote pilot shall be liable to ensure that privacy norms of any entity are not compromised in any manner.

No Drone Zone

- 5 km from the perimeter of airports at Mumbai, Delhi, Chennai, Kolkata, Bengaluru and Hyderabad.
- 3 km from the perimeter of any civil, private or defence airports.
- Within 25 km from international border (including LoC, LAC and AGPL).
- Beyond 500 m (horizontal) into sea from coast line.

No Drone Zone

- Within 3 km from perimeter of military installations/ facilities/ where military activities/ exercises are being carried out.
- Within 5 km radius from Vijay Chowk in Delhi.
- Within 3 km radius of State Secretariat Complex in State Capitals.
- Within 2 km from the perimeter of strategic locations/vital and military installations.

Test Sites

- To encourage new technology, Indian Organizations/ Institutions involved in R&D related activity of RPAS shall use the 23 test sites listed in the CAR for testing/ demonstration purpose.
- The organizations, may alternatively utilize unused airstrips or Government educational institutions campus, provided adequate safety precautions are in place.

Manufacturing Standards

- For Nano and Micro categories of RPAS, the minimum standards for manufacturing as envisaged by designer/OEM, shall be considered.
- For Small & above, minimum manufacturing standards of RPAS (both Indian & foreign) specified in regulations.
- Standards include capability in terms of:
 - NPNT
 - Return to Home
 - Detect and Avoid
 - Geo-fencing
- Manufacturer to provide a Certificate of Compliance to standards.

Provisional acceptance of RPAS

- **Stage 1** – R&D by OEM i.a.w. Chapter 6 & 7 of the RPAS Guidance Manual
- **Stage 2** – Documentation submission to DGCA for verification & acceptance
- **Stage 3** – Familiarization & Demonstration
- **Stage 4** – Acceptance of Model & populating in Digital Sky

Insurance & Enforcement Actions

- RPA operators shall have insurance with liability that they might incur for any damage to third party resulting from the accident/incident.
- Suspension/ Cancellation of UIN/ UAOP in case of violation of regulatory provisions.
- Penalties as per applicable IPCs (such as 287, 336, 337, 338 or any relevant section of IPC).
- Relevant Sections of the Aircraft Act 1934 or Aircraft Rules 1937 or any statutory provisions.

THANK YOU